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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,864	06/30/2000	Andrew Bencich Woodside	24760A	9951

7590 09/22/2004  
John A. Molnar, Jr.  
Parker-Hannifin Corporation  
6035 Parkland Boulevard  
Cleveland, OH 44124-4141

EXAMINER

FERGUSON, LAWRENCE D

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

S.C.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/607,864	WOODSIDE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lawrence D. Ferguson	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-17, 23-27 and 31-41 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 15-17, 23-27 and 31-41 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Request for Reconsideration***

1. This action is in response to the amendment mailed June 20, 2004. Claim 15 was amended, claims 18-22 were cancelled and claims 31-41 were added rendering claims 15-17, 23-27 and 31-41 pending.

### ***Claim Rejections – 35 USC § 103(a)***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosuga et al. (U.S. 4,960,642).

4. Kosuga shows pellets for making electromagnetic wave shielding material comprising carbon conductive fibers (column 2, lines 26-27), an organic coating of a thermoplastic resin oligomer having a viscosity of not more than 10,000 centipoises when melted (column 1, lines 21-28 and claim 1), and a thermoplastic resin coating (polymer coating) (claim 1). Kosuga shows that the fibers have a length of 6mm (column 4, line 45). Kosuga further shows that the conductive fibers are bundled in groups of 1,000 to 10,000 (column 2, lines 30-23). The reference shows that the thermoplastic

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resin coating comprises acrylonitrile-butadiene-styrene copolymer (claim 3). Though Kosuga shows that the organic thermoplastic resin oligomer material has a viscosity of no more than 10,000 centipoises when melted (claim 1), Kosuga does not show that the pellets have a viscosity at temperatures of from 80 C-180 C as in instant claims 15 and 19-22. Kosuga uses the same organic thermoplastic resin oligomer materials as in Applicants' invention. Thus, it would have been obvious to one of ordinary skill in the art to use an organic material which has a viscosity of no greater than 1500 centipoises at temperature ranges of 80 C-180 C since it is known in the art that such oligomers would have those viscosities.

***Claim Rejections – 35 USC § 103(a)***

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kosuga et al (U.S. 4,960,642) in view of Kobayashi et al (U.S. 4,356,228).

6. Kosuga is relied upon for claims 15-23 and 25-27. Kosuga shows that the organic thermoplastic resin oligomers used to coat the conductive carbon fibers include polyester resins and ethylene-ethylacrylate resins (claims 2-4). Kosuga does not show that the organic thermoplastic resin oligomers are comprised of those listed in instant claim 24.

Kobayashi teaches a fiber-reinforced moldable sheet comprising a thermoplastic resin and reinforcing agents of carbon fibers incorporated into the thermoplastic resin (Abstract). Kobayashi teaches that the thermoplastic resins used include polyesters

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(column 3, lines 64-68), poly(bisphenol A carbonate), polysulfones, styrene resins, and acrylic resins (column 4, lines 1-4). Kosuga and Kobayashi are analogous art because they are both from the field of carbon fiber material. It would have been obvious to one of ordinary skill in the art to use bisphenol A resin in the organic thermoplastic resin oligomer coating of Kosuga because bisphenol A, polyester, and acrylic resins are thermoplastic resinous materials used in order to obtain an impregnated product (column 4, lines 1-23).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iwaskow et al (U.S. 4,882,089) teaches pellets molded into a conductive article (column 9, lines 15-25) having a conductive core (column 2, lines 67-68) and conductive fibers (column 4, lines 25-30). Iwaskow et al (U.S. 4,983,456) also teaches pellets molded into a conductive article (column 9, lines 15-25) having a conductive core (column 2, lines 67-68) and conductive fibers (column 4, lines 25-30). Last, Iwaskow et al. (U.S. 4,752,415) teaches pellets molded into a conductive article (column 9, lines 15-25) having a conductive core (column 2, lines 67-68) and conductive fibers (column 4, lines 25-30)

### ***Response to Arguments***

8. Rejection made under 35 U.S.C. 112, first paragraph, is withdrawn due to Applicant removing language, '...being selected to be impregnable into said core without substantial pressurization' which was not supported by the specification.

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Applicant's failed to provide arguments in regard to rejection made under 35 USC 103(a) as being unpatentable over Kosuga et al (U.S. 4,960,642) therefore the rejection is maintained for reasons of record. Applicant's failed to provide arguments in regard to rejection made under 35 USC 103(a) as being unpatentable over Kosuga et al (U.S. 4,960,642) in view of Kobayashi et al (U.S. 4,356,228) therefore the rejection is maintained for reasons of record.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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**Conclusion**

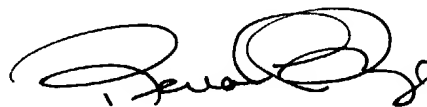
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lawrence Ferguson  
Patent Examiner  
AU 1774



**RENA DYE**  
**SUPERVISORY PATENT EXAMINER**

A.U. 1774